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CONTENTS.

EDITORIAL SUMMARY.
 PARKWAYS AND BOULEVARDS IN AMERICAN CITIES. — III.
 LETTER FROM CANADA.
 JOSEPHINE'S MALMAISON RESTORED.
 GREAT ALPINE TUNNELS.
 TREASURES IN FRENCH COUNTRY-HOUSES.
 SOCIETIES.
 NOTES AND CLIPPINGS.

EQUESTRIAN STATUE OF GEN. JOHN F. REYNOLDS, GETTYSBURG, PA.
 CAPITOL FOR THE STATE OF MONTANA, HELENA, MONT.
 HOUSE AT DETROIT, MICH.
 ENTRANCE TO "THE DUNSTER," CAMBRIDGE, MASS.
 KELLOG TERRACE, GREAT BARRINGTON, MASS.
 BANK, ST. QUENTIN, FRANCE.

Additional Illustrations in the International Edition.

DOORS IN THE TRUSTEES' ROOM: LIBRARY OF COLUMBIA UNIVERSITY, NEW YORK, N. Y.
 [Two Gelatine Prints.]
 THE QUEEN'S SITTING-ROOM AT THE HAGUE, HOLLAND.
 "KELSEY," BECKENHAM, ENG.
 THE DRAWING-ROOM OF THE SAME.

ILLUSTRATIONS.

TRUSTEES' ROOM: LIBRARY OF COLUMBIA UNIVERSITY, NEW YORK, N. Y.
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[For Classified List see Cover 3.]

Alphabetical List of Advertisers.

A.	E.	K.	R.
Adams, James.....I	Expanded Metal Co.....xiv	Keasbey & Mattison Co.....E	Randolph & Clowes.....xiii
Aeschlimann & Pellacini.....I	F.	Kenny Co., The.....xiii	Baritan Hollow & Porous Brick Co. xv
Alcott, Ross & Scully Co.....E	Farguhar's Sons, John.....viii	Kinnear & Gager Co., The.....(Cov.) 4	Eider-Ericsson Engine Co.....E
Alexander's Cement Works.....(Cov.) 4, M	Fisher & Co., Robert C.....I	L.	Roebing's Sons Co., John A.....xv
American Luxfer Prism Co.....I	Fitch Co., The W. & E. T.....xi	Lawrence Scientific School.....I	
American Mason Safety Tread Co.....E	Flexible Door & Shutter Co.....E	Loomis.....I	S.
Apollo Iron and Steel Co.....(Cov.) 2	Flynt Building & Construction Co.....I	Lord & Barnham Co.....ix	Barnes Cordage Works.....viii
Armstrong & Co., Maitland.....I	Folsom Snow Guard Co.....M	Lowinson, Oscar.....I	Sargent & Co.....(Cov.) 2
Atelier Macqueray, The.....I	French & Co., Samuel H.....(Cov.) 3	Ludlow Saylor Wire Co.....M	Sieben Trap and Specialty Co., The.....xiii
Atlas Cement Co.....M	Frink, I. P.....xi	M.	Smith & Co., Edward.....I
	Frost & Adams Co.....E	Merchant & Co.....E	Smith Co., H. B.....xi
B.	G.	Moore & Co., Benjamin.....E	Snod & Co. Iron Works.....I
Barron, Boyle & Co.....(Cov.) 4	General Electric Co.....E	Morse, Williams & Co.....E	Spaulding Print Paper Co.....E
Berger Mfg. Co., The.....I	Glidden Varnish Co., The.....xiii	Mott, J. L.....xiii	Stanley Works, The.....I
Berlin Iron Bridge Co.....xiv	Globe Ventilator Co.....(Cov.) 3	N.	Stearns, Miss.....E
Bickelshaupt, G.....I	Gorton & Lidgerwood Co.....xi	Nat'l Sheet Metal Roofing Co.....xvi	Stowell Mfg. Co.....ii
Bolles Revolving Sash Co.....ii	Guastavino Co., R.....(Cov.) 4	National Wood Mfg. Co.....viii	
Bommer Brothers.....viii	H.	Neuchatel Asphalte Co.....viii	T.
Bower Trap and Specialty Co., The B.....E	Haberstroh & Son, L.....viii	New England Felt Roofing Works.....vii	Taylor Co., N. & G.....xvi
P.	Hayes, Geo.....viii	N. J. Steel and Iron Co.....(Cov.) 4	Taylor, J. W.....E
Bridgeport Chain Co., The.....xiii	Heliotype Printing Co.....vii, xiv	New Jersey Wire Cloth Co.....xv	Thiele, E.....M
Brooks, T. H. & Co.....M	Hydraulic Press Brick Co.....xvi	N. Y. and Rosendale Cement Co. (Cov.) 4	Thorn, J. S. Co.....E
Butscher Polish Co.....vii	I.	New York Belting & Packing Co.....ix	Troy Laundry Machinery Co.....(Cov.) 4
C.	Ideal Manufacturing Co.....xiii	New York Mastie Works.....xvi	Tyler Wire Works Co., The W. S.....I
Cabot, S.....v	International Correspondence Schools, The.....xiv	New York Metal Ceiling Co.....E	
Central Fireproofing Co.....xv	J.	Northrop, H. S.....I, M	U.
Chrome Steel Works.....viii	Jackson Architectural Iron Works.....xii	Northwestern Terra-Cotta Co.....xvi	University of Tennessee.....x
Clark, Bunnett & Co.....(Cov.) 4	Jackson & Co., Wm. H.....(Cov.) 4	O.	U. S. Mineral Wool Co.....xv
Clinton Wire Cloth Co.....xi	Jenkins Bros.....viii	Okonite Co. (Ltd.).....vii	V.
Columbia College.....I	Johns, H. W., Mfg. Co.....viii	P.	Valle & Young.....(Cov.) 4
Continental Insurance Co.....E	Jones, T. W.....(Cov.) 2	Passaic Rolling Mill Co.....xii	W.
Cundell, F. E.....xiii		Pellarin & Co.....I	Waldo Bros.....xvi
Cunningham, C. A.....(Cov.) 2		Perth Amboy Terra-Cotta Co.....I	Warner Elevator Co.....xiv
Cutler Mfg. Co.....ii		Pioneer Fireproof Construction Co.....xvi	Warren Chemical & Mfg. Co.....xvii
D.		Pitt, W. R.....M	Westinghouse Machine Co.....vii
Danahy Iron Works.....xii		Pittsburgh Terra-Cotta Lumber Co.....xv	Wheeler Electric Co., M. B.....viii, xii
Deane, E. Eldon.....I			Whittier Machine Co.....I
Devoe & Co., F. W.....I			Williams, John.....ix
Dixon Ornate Co., Jos.....vii			Wilson, Jas. G.....(Cov.) 4
Dwight Lumber Co.....E			X.
			Yale & Towne Mfg. Co.....xi

THE AMERICAN ARCHITECT AND BUILDING NEWS.

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OCTOBER 29, 1898.



SUMMARY:—

Arrangements for this Year's A. I. A. Convention.— Building Operations not keeping Pace with the Growth of Population.— Why Building in Europe is not so retarded.— Collapse of a Sea-wall at the Brooklyn Navy-yard.— Dedication of the R. M. Hunt Memorial.— Death of Puvion de Chavannes, Painter.— Automobile Vehicles a Failure in London but a Success in Paris.— Recovery of Gainsborough's "Duchess of Devonshire."	33
PARKWAYS AND BOULEVARDS IN AMERICAN CITIES.— III.	35
LETTER FROM CANADA.	36
JOSEPHINE'S MALMAISON RESTORED.	37
GREAT ALPINE TUNNELS.	38
TREASURES IN FRENCH COUNTRY-HOUSES.	38
SOCIETIES.	39

ILLUSTRATIONS:—

Trustees' Room: Library of Columbia University, New York, N. Y.—Equestrian Statue of Gen. John F. Reynolds, Gettysburg, Pa.—Capitol for the State of Montana, Helena, Mont.—House at Detroit, Mich.—Entrance to "The Dunster," Cambridge, Mass.	
Kellog Terrace, Great Barrington, Mass.—Bank, St. Quentin, France.	
Additional: Doorways in the Trustees' Room: Library of Columbia University, New York, N. Y.—The Queen's Sitting-room at the Hague, Holland.—"Kelsey," Beckenham, Eng.—The Drawing-room of the Same.	39
NOTES AND CLIPPINGS.	39

AS before announced, the Convention of the American Institute of Architects will meet in Washington November 1. Arrangements have been made for reduced fares on the railroads belonging to the Central Traffic Association, not including, however, those in New England. The roads belonging to the Association, if one hundred or more tickets are taken by members of the Institute, will transport them, with, presumably, their families, to and from Washington for one fare and one-third, ticket-holders paying full fare to Washington, and one-third fare home again, on presentation of a certificate of attendance from the proper officers of the Institute and the railroads. Passengers from New England will do best to go to New York, and avail themselves, thence to Washington, of the reduced rates. The headquarters of the Convention in Washington, apart from the Octagon House, will be at the Arlington Hotel, where rooms and board can be had at four dollars a day and upwards; but the Committee of Arrangements give addresses of boarding-houses, where the expenses will be much less. More than one hundred members have already signified their intention of being present, and the occasion will be a most interesting one.

THE *Record and Guide* makes some very sensible reflections on the present dullness of business in the real-estate market, and the building-trades, particularly in New York. In that city, as elsewhere, the building interests had begun, in the spring of this year, to recover a little from the succession of panics, political and financial, which have kept them in a state almost of suspended animation for the last decade; and real-estate men, like architects and large contractors, thought that there was reason for believing that the present season would be one of considerable activity. Just then, like a thunderbolt from a clear sky, came the declaration of war with Spain, and these cheerful anticipations had to be postponed. It was hoped, however, that the war would be short, and that the projects discussed in the spring would be taken up again in the autumn, but the autumn has come, and with it renewed political anxieties, uncertainties as to the peace settlement, and a feeling of new and indefinite responsibilities to be provided for before the country can go back again to its work. The *Record and Guide* shows clearly that house-building in New York has not kept up with the increase in population, and that, under normal conditions, the demand for new buildings should be greater than it was five years ago; but the conditions are still, as they have been for many years, those of uneasiness and apprehension, and under these influences men will not

build, or move into new houses, or do anything else involving the expenditure of money which, through some political convulsion, they may never be able to replace. In Boston, the situation is the same as in New York; but in certain branches, as in store-building, hardly anything has been done for the last ten years, and the revival of mercantile business, which the whole community is praying for, will find, in Boston, very scanty accommodation. Philadelphia, where special conditions exist, is said to be fairly prosperous; but Chicago has shared the despondency of the Eastern cities, and St. Louis, Kansas City and other towns in the West sympathize with Chicago. Whether the winter will see the United States happily rid of the burdens which now clog the prosperity of its citizens remains to be seen, but, if it should, we may expect in another season to witness the revival of countless projects for improvements, which have been nursed for almost half a generation, in the hope of seeing business prospects sufficiently settled to warrant carrying them out.

IT is curious to note the contrast between building matters here and those which prevail abroad. Germany, as every one knows, has been almost in a fever of building enterprises for twenty years, and the demand for new structures hardly seems to abate. Switzerland, which is never disturbed by wars or rumors of wars, is in a state of gentle prosperity which is charming to see. In the cities, new quarters are springing up everywhere, and the country is filling with hotels and villas. In England, although streets of new city houses are not apt to be artistically attractive, they are to be seen everywhere, and one of the London newspapers asserted recently that, in the City of London, there was not a single building without a tenant, taking this observation as a text for a homily on the evils of overcrowding; while another newspaper, remarking that building by syndicates was rapidly becoming a favorite form of investment in England, warned its readers, before venturing their money in such enterprises, to assure themselves that they were to be carried on by honest men. We do not know whether the mouths of Chicago and Boston real-estate owners would water more at the thought of a great mercantile city without a vacant store, or those of American architects and mechanics at the thought of the prevalence of syndicate building in a community; and one cannot help reflecting, in comparing our condition here with that of our brethren abroad, on the inestimable value, to persons who get their living by assisting in the honest and solid investment of money, of freedom from public alarms, and, above all, of perfect confidence in the stability of a public financial system. Without expressing any opinion upon the relative advantages of a gold, or silver, or mixed standard of values, we believe that every architect experienced enough to be admitted to the financial consultations of his clients will agree with us that uncertainty as to what the standard is to be has done more to check large building enterprises than all other causes combined. No financial institution will lend money for building on a mortgage which leaves it uncertain what sort of dollars repayment shall be made in, and the owners of buildings who have borrowed money at the gold standard to pay for them, and are legally and morally bound to repay the loan at the same standard, must, if they are wise, require their tenants to pay their rents also in gold, to be sure of meeting their mortgage interest. The tenants, however, if they are prudent, are likely to demur at contracting to pay their rent in a medium which they may have to purchase, later, at an enormous premium; and the consequence is, as in the case of the house that Jack built, tenants do not like to make gold contracts for rent, landlords do not like to erect buildings with mortgage money the interest on which may not be covered by the rents; and trustees do not like to lend money on a mortgage about which there is any uncertainty, and so the scheme, which would be carried out without a question if there were only one kind of dollar in which debts could be paid, is abandoned. Unlike general business, in which goods bought one day are sold the next, the industry which concerns itself with the improvement of real-estate must work slowly. Years are needed to prepare its goods for the market, and more years to dispose of them; and an uncertainty which is hardly felt by ordinary commerce involves almost complete stagnation for the building interests.

A PORTION of the sea-wall at the Brooklyn Navy Yard gave way the other day, the stones sliding into the water just under the battle-ship "*Indiana*," which was moored alongside the wall, but, fortunately, doing the vessel no damage. The accident was undoubtedly due to the inability of the wall to resist the pressure of the earth behind it. Very possibly, at the time when it was built, it was adequate to its work; but, since then, a stone pavement has been laid over the ground for some forty feet back from the wall, presumably with the aid of heavy tamping, and the wall began to give way some time ago. Directions had already been given for its repair, but the "*Indiana*" needed berth-room, and operations were suspended to accommodate it. Meanwhile, a quantity of heavy chain is said to have been piled up on the pavement just behind the weak part of the wall, and the weight of this undoubtedly hastened the catastrophe.

THE monument to the late Richard M. Hunt, on the Fifth Avenue wall of the Central Park, in New York, is to be unveiled on Monday next, October 31, at four o'clock in the afternoon, this day being chosen as the anniversary of Mr. Hunt's birth. Mr. George B. Post, President of the American Institute of Architects, and of the Fine-Arts Federation, and Chairman of the Hunt Memorial Committee, will present the monument to the official representative of the City of New York, who will accept it in a suitable manner. The Committee hopes that there will be a large attendance of artists, particularly of the members of Mr. Hunt's own profession.

THE death of the noted painter Puvis de Chavannes will cause regret almost throughout the civilized world. Pierre Puvis de Chavannes was born in Lyons, seventy-three years ago. His father was an engineer, eminent in his profession, and of a distinguished family, and the son was able to follow his inclination in the choice of a profession. He studied under Henri Scheffer and Couture, and met at first with some success, but he had formed some peculiar ideas on the subject of painting, and awaited an opportunity to carry them into practice. His brother, who, about 1860, built a country-house not far from Paris, gave him this opportunity, by commissioning him to decorate certain rooms in the house. One of his paintings, executed, in pursuance of this commission, for his brother's dining-room, was exhibited at the *Salon*; and, the next year, he painted two panels, in the same style, which were shown at the Exposition of that year, and gained for him a second-class medal. Both these panels were afterwards purchased by the Government. From that time he devoted himself to decorative painting, receiving commissions from the cities of Amiens, Rouen and Lyons, and from the French Government, for which he painted the scenes from the life of Sainte-Geneviève, in the Panthéon, and the hemicycle in the lecture-room of the Sorbonne. His last important commission was that for the decorative paintings on the walls of the staircase of the Public Library, in Boston. Among French painters, Puvis de Chavannes was a conspicuous figure. Although he had no quarrel with the members of the older body, which had bestowed on him his highest honors, he took part in the organization of the seceding group of artists, which founded the National Society of Fine-Arts and established the new *Salon* in the Champ de Mars, and was for a long time the President of the Society. Although we cannot say that the works of Puvis de Chavannes appeal to us very strongly, as paintings, he certainly exercised great influence on the art of his time. He was the first of the moderns to declare that decorative painting should respect the architecture which it adorned, keeping itself flat on the walls or ceilings, instead of frantically endeavoring, by forced light and shade, to deceive the spectator into imagining that the wall did not exist. The younger men in the profession, who were less wedded than their elders to the traditions of Versailles and the Italian school, soon saw the significance of this principle, and what were thought, forty years ago, to be the eccentric notions of the young Lyons painter have proved the inspiration of a great artistic movement. Curiously enough, the Congressional Library, at Washington, three thousand miles from Paris, furnishes the best example in the world of the realization of the maxims of the great Frenchman; but the artists who labored together to produce that splendid piece of decoration are not the only converts to the new theories, and much of the best artistic work done in France, and even in England, owes, perhaps unconsciously, its impressive simplicity to the influence of the new school.

A GREAT deal is said just now about "automobile" carriages, and a good many unfounded assertions appear in the daily newspapers concerning them. It was reported, for example, not long ago, that a great number of them were to be introduced into London for cab service, and that the old hansoms and four-wheelers would soon be driven from the field. In point of fact, although a company exists for maintaining horseless hackney carriages in London, and such carriages may be occasionally seen there, the number of them is trifling in comparison with that of the ordinary vehicles, and their appearance is not so attractive as to lead to the inference that they will become popular. Instead of being light, easy-running vehicles, they are large, heavy affairs, painted yellow, and running with a certain amount of noise. As one cabman said, "People don't care to ride on a threshing-machine," and the advantage in comfort certainly seems, for the present, to lie on the side of the horse-drawn vehicles, nearly all of which, in London, are provided with rubber tires, and roll very smoothly over the wood or asphalt pavements.

IN Paris, on the contrary, while there are, apparently, no public automobile carriages, except those which can be hired from manufacturers, the number of private vehicles of the kind is very large, and they are to be seen in various forms, from the little tricycle with its naphtha engine mounted behind the saddle, to the family travelling-carriage. Multitudes of them may be seen in the afternoon on the avenues leading to the Bois de Boulogne, and the ease with which they are handled is remarkable. Moreover the large retailers are, apparently, beginning to employ them as delivery-wagons, with obvious advantage, and, to all appearance, they are becoming more popular every day. In France, particularly, they are applied to what would seem to be their best use, that of making long tours. The sight of a comfortable family carriage, arriving without horses at the door of a hotel in Chamonix, was, to us, sufficient demonstration of the adaptability of the machine to tourist service; for, certainly, a family carriage which could traverse in safety the Tête Noire pass need not fear any ordinary highway. The only difficulty which, it would seem, need now be apprehended, would be that of finding supplies of naphtha on a long journey, but, as the demand increased, means would be found to provide for it in country towns.

A ROMANTIC story is told about a picture, which was stolen some twenty years ago from a dealer in London.

This picture is a portrait, by Gainsborough, of the Duchess of Devonshire, and the dealers, Messrs. Agnew, are said to have paid more than fifteen thousand dollars for it. In 1876, it disappeared from their galleries, and, until recently, no trace of it has ever been found, although the owners offered a reward of a thousand pounds for its recovery. Some months ago, a member of the Vestry of Chelsea, now a part of London, had occasion to make several visits to a large, old-fashioned house, inhabited only by an old woman, who appeared to be very poor, although it was observed that she ate her food, when she had money enough to buy any, from beautiful antique silver dishes. No charges were on file in the police stations against the old woman, although she was known to have been housekeeper to a celebrated thief, who, at the time of the vestryman's visits, was serving a long term of imprisonment. The duties of the vestryman led him, one day, to the cellar of the old house, and there he stumbled over a large panel of some sort. He obtained a light, and discovered that the object was a picture covered with dirt, and more or less cut and torn, but showing a large hat and a red flower. Remembering the stealing of a picture from the Messrs. Agnew, he communicated with them, and they visited the place, and recognized their property. They authorized him to purchase the picture from the old woman, and he did so, paying a trifling sum for it. They then invited him to return it to them, but he refused to do so until he should be paid the thousand pounds promised for its recovery. At the last accounts, they had not paid the money, and the vestryman had not delivered the picture; and, supposing the story to be true, it seems likely that some interesting points of law, as to whether a man who buys stolen property, knowing it to be stolen, can keep it as security for the payment of the reward offered for its recovery, and whether, if the reward is offered, as was the case here, for the recovery of the property and the apprehension of the thief, all or any part of it can be claimed if the property is returned, and the thief identified as a person already in custody, will be determined before the affair is settled.

PARKWAYS AND BOULEVARDS IN AMERICAN CITIES. — III.¹Chateau de Vaux-le-Vicomte, France. From *L'Architecture*.

NO Chicago belongs the distinction of being the first American city to undertake a comprehensive and unified scheme of park development. The execution of this work is the more commendable in that it was divided between three separate commissions, the Park Boards of the north, south and west sides, their jurisdictions being divided by the Chicago River and its branches. The result is a system of boulevards which connect the several parks of the city and form a belt enclosing the greater part of the population. A radical defect of this system is its conformity to the arbitrary rectangular lines — north and south, east and west, — upon which most of the newer American cities are unfortunately plotted. The prairie levels of the Chicago region offer no natural obstacles whatever to the laying-out of lines of communication in whatever direction convenience may dictate. It therefore seems strangely illogical that in the very place where freedom of choice is least restricted by nature there has been the strictest conformity to an arbitrary standard.

The impression made by these long lines of boulevard, with their smooth and level roads, their trimly kept borders, is very agreeable. A level surface invites formal development, and straight lines are most suitable under such conditions. Some diversity, however, is needed, and forty miles of boulevard on a practically uniform plan of straightaway continuity cannot help being monotonous.

The variation of gracefully curving lines is happily supplied, however, by the Lake Shore Drive. The use which Chicago has made of the lake shore furnishes one of the most felicitous instances in the history of modern municipal development of a proper and adequate appreciation of a great natural feature. The lake is the dominant and most characteristic element in the scenery of the region. Its ocean-like expanse, with the play of light upon the surface, the exquisite coloring of the waters, the movements of a great commerce, — all these give unceasing interest for the eye. The Lake Shore Drive runs northward along the lake as far as Fort Sheridan, a distance of something like twenty miles.

On the south side of the Chicago River, outside the extensive and unimproved area called the Lake Front and the drive in Jackson Park, but little advantage has yet been taken of the opportunities offered by the shore. The Lake Front is bordered by the handsome Michigan Avenue, which is in charge of the Park Department. Mr. D. H. Burnham, architect, has a colossal project for the improvement of the South Shore between the Lake Front and Jackson Park, together with a connection across the river with the North Shore Drive. He would fill-in very extensively outside the present shore, forming a long and narrow neck, coursed by a pleasure-drive of five and a half miles along the lake and diversified with park-like grounds. Between the new land and the present shore would be a lagoon with picturesque banks and islands. The improvement would be largely paid for by the sale of lands bordering the lagoon and the drive as sites for palatial residences, to which permanently beautiful surroundings would be assured. Lines of motor-launches would run

on this lagoon and the wealthy might have their private launches to carry them swiftly to and from their business.

The Lake Front would be treated in a formal manner and occupied by great monumental buildings, splendid sculptural groups, fountains, and a magnificent triumphal arch. Besides the Institute of Fine Arts, one of these buildings would be the Field Columbian Museum, to be removed from Jackson Park. The Chicago River would be crossed by a bridge of architectural character, gradually rising to a height of 50 feet above the water to admit the free passage of the largest steamers, and having a lift to allow masted vessels to enter and leave the river unimpeded. Another connection with the North Shore would be by a tunnel, in itself a fine architectural feature, brilliantly lighted and richly decorated with sculpture. At the harbor, near the Lake Front, the South Shore Drive would terminate in a grand circle occupied by a colossal statue — a Pharos holding a flaming torch and illuminating the harbor and the drive. The lagoon shores and islands would have naturally wooded slopes, planted so as to give occasional vistas through to the lake. This would give a course of internal water-ways from the harbor at the Lake Front through to the southern end of Jackson Park, in connection with the existing lagoon, historic as one of the enchanting features in the World's Fair design. The islands and coves of the lagoon would offer sites for boat-houses and clubs. At stated periods in the summer there would be water pageants by day and floating illuminations by night. The design for the driveway itself provides for an outer and an inner carriage-way with bicycle and equestrian paths between, and broad stone walks, all arched by rows of trees. On the lake side would be a fine parapet of stone. The lagoon would be crossed by five bridges carrying broad avenues to connect the drive with the streets to the west of the Illinois Central Railroad tracks. At the junction of these transverse avenues with the drive a broad concourse is planned, with a tall monument in the centre, effective from the shore, the lake and the roadways in all directions. In speaking of the achievement of 1893 and its logical sequence in the present project as a permanent expression of the same aspirations that were realized in the passing glories of that spectacle Mr. Burnham says: "The spirit of this people did not sing once and then die forever. The World's Columbian Exposition was but an announcement of a simple theme, of which the people will henceforth have much to say."

A great charm of this proposed improvement is the strong and immediate contrast between the great lake on one side, with its surges, its unbroken horizons, its majestic simplicity, and the tranquil beauty of the lagoon on the other side, with its idyllic character in delicate transitions of lovely scenery that, in its way, is a visible expression of the spirit of an ideal civilization that combines nature and art to the happiest ends. It is a fascinating scheme. But for Mr. Burnham's masterly record in the building of the famous White City this project might seem entirely visionary. That work, however, has given him a standing so high in the confidence of the Chicago business public that the realization of his plan does not seem at all improbable. Should it be carried out it would take its place among the world's wonders, giving Chicago an interest for lovers of civic beauty as unique, in a permanent way, as were for a season the brief glories of the Columbian World's Fair.

The finest feature of Chicago's formal parkways is the Midway Plaisance. When this grand connection between Washington and Jackson Parks was originally projected Mr. Olmsted advised that it be made the medium for carrying inland from the lake a chain of water communication for pleasure purposes. When, after the World's Fair, the question of the permanent improvement of Jackson Park and the Midway Plaisance came up, Mr. Olmsted renewed his recommendation and the plan presented by him was adopted. This provided for a broad water-way through the centre of the Midway Plaisance connecting the reconstructed lagoons of Jackson Park with the lakes in Washington Park. It was rightly held that this chain of water communication, continuously navigable for pleasure-craft, would have a valuable place in the recreative life of the great city. The open waters of Lake Michigan, subject to fierce winds and sudden squalls, are not in favor for aquatic recreation in the degree that the people of the Atlantic coast cities resort to the sea. This inland water-way would therefore provide delightful opportunities for boating on smooth, safe water and surrounded by beautiful scenery, with a line of launches supplying popular round-trip excursions of several miles. A feature of this plan is a grand straightaway boating course on the canal for the students of Chicago University, whose grounds have an extensive frontage on the Midway Plaisance. The improvement has been carried out in accordance with this plan — with the exception that a surface of turf has been temporarily substituted for the water in the canal. The completion of the work awaits the advancement of the necessary funds, the thirteen new bridges required making it a costly work.

In its boulevard system Chicago has a continuous drive of over forty miles. Drexel Boulevard, the chief avenue, has the shape of two driveways enclosing a central and very wide space characterized by garden-like treatment. Each block is different in design, but the intricacy of the work has been commendably simplified of late. The Illinois Boulevard Law is the instrumentality under which this great system of pleasure-ways has been created. It provides that public parks, boulevards and driveways may be connected with any part of a city or town wherein a park commission has jurisdiction, by the taking of any connecting streets with the consent of the municipal

¹ Continued from No. 1191, page 28.

authorities and the written consent of the owners of a majority of the frontage, the estimated cost of the improvement to be assessed upon contiguous property. In this way agreeable approaches to the parks, like Michigan Avenue, for instance, are provided from the middle of the city. This law furnished the model for one enacted in Massachusetts in 1893, under which Commonwealth Avenue, in Boston, was transferred to the Park Department.

Several large Western cities have made notable progress in the establishment of parkways and boulevards. Among these, Minneapolis was early in appreciating the desirability of these improvements and, under the counsel of Mr. H. W. S. Cleveland, the landscape architect who designed some of the most important park-work in Chicago, laid out a system of handsome parkways girdling the city and connecting several of the principal parks with one another.

Cleveland, which has long been famous for its magnificent Euclid Avenue, has undertaken a system of parkways connecting a series of parks—a continuous drive of thirty miles around the city, from the Lake Erie shore at Gordon Park on the east to Edgewater Park on the west. This work includes a very notable parkway of the picturesque type, similar to the Boston Riverway, designed by Mr. Bowditch.

Louisville has a broad and fine parkway of the formal type, designed by the Olmsted, called the "Southern Parkway." It is several miles long and has three roads, with a central drive restricted to pleasure purposes.

St. Louis, although without parkways of considerable length, is distinguished by a number of short parkways called "places," highly decorated and very attractive.

San Francisco has a magnificent pleasure-drive in the Great Highway, bordering the Pacific Ocean for three miles and connecting with Golden Gate Park.

New Orleans is characterized by a number of very wide avenues which have been treated more or less in the manner of parkways, with central reserved spaces for electric-cars, or occupied by canals. In this way New Orleans is better provided with parkways of the formal type than any other city in the country. These avenues were not laid out originally as parkways, but were features of the plan of the city. But they are broader and finer than many of the boulevards in the Northern cities. It should be observed that New Orleans set the original example, in these great avenues, of setting apart central reserved spaces for street-cars. New Orleans, I believe, was the first city to adopt the street-railway idea, and these reserved spaces date back to that time. The plan of a central reserved space, with car-tracks laid in turf, originated, however, with Mr. Olmsted in the planning of the Beacon-Street improvement. When electricity took the place of animal traction in New Orleans it was easy to adapt the lines to the Boston plan.

Like New Orleans, the national capital has been distinguished from the start by a system of grand avenues, many of which, with their perfect paving and their beautiful trees, have a parkway character. Plans for the extension of the street system, including a line of parkways to Rock Creek, thence to the Soldiers' Home, and completing the circuit by way of the East Branch of the Potomac, have been prepared by Mr. John C. Olmsted.

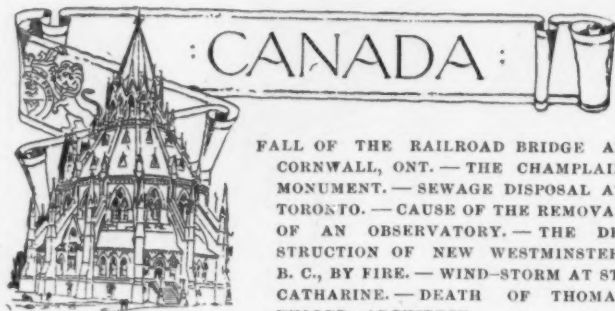
Buffalo, like Washington, has a wellnigh perfect system of street-paving that, for pleasure uses, is an excellent auxiliary to the several fine parkways that extend into the suburbs. Buffalo was one of the earliest of American cities in laying-out its formally designed parkways and has very recently completed one of the picturesque river-side type.

A foreign city on this continent, Mexico, has a grand pleasure-way that takes rank with the famous avenues of the world's cities. In its character the Paseo de la Reforma resembles the magnificent drives of like purpose in Paris, Madrid and Vienna. It begins near the ancient part of the city and runs in a straight line to Chapultepec, where the famous castle on its hill rises at the end of the avenue. The broad central drive is bordered by broad promenades and shaded with ash and eucalyptus trees standing in a strip of turf. Outside of the promenades are narrow traffic-roads, each with a single track for street-cars, and faced by some of the handsomest residences in the capital. The monotony of an uninterrupted straight-away stretch of so great a distance is relieved by the expansion of the drive, at regular and frequent intervals, into great circles designed as sites for large and decorative monuments, always prominent in the vista. One of these circles is occupied by a great monument to Columbus, and a second by a beautiful statue of Guatemotzin, the last Aztec monarch, while Tolsa's noble equestrian statue of the Spanish Carlos IV, "preserved as a work of art" as it is significantly described, does like service at the beginning of the avenue. No city on the continent can show a more brilliant spectacle of the kind than the concourse on this Paseo every afternoon. The present name was given to the avenue directly after the fall of the second empire, of which it is a heritage, having been projected by the Empress Carlotta.

Mention should be made of the interesting pleasure-ways of some of our lesser American cities, such as the Merrimac River Drive in Lowell designed by the late Charles Eliot; the action of Brockton, Mass., in securing two attractive boulevards by taking advantage of the widening of rural highways for electric-railway construction; and the celebrated avenue at Riverside, Cal., bordered by orange-groves. Improvements like these, instituted by a minor city, may become of inestimable value with its growth to a large centre of

population, as many a place is destined to develop. That even rural towns may obtain beautiful pleasure-ways at a small cost is shown by the results at Manchester and Yarmouth, Mass., where strips of woods bordering pleasant roads have been made public property to assure the perpetuity of attractive local features.

SYLVESTER BAXTER.



FALL OF THE RAILROAD BRIDGE AT CORNWALL, ONT.—THE CHAMPLAIN MONUMENT.—SEWAGE DISPOSAL AT TORONTO.—CAUSE OF THE REMOVAL OF AN OBSERVATORY.—THE DESTRUCTION OF NEW WESTMINSTER, B. C., BY FIRE.—WIND-STORM AT ST. CATHARINE.—DEATH OF THOMAS FULLER, ARCHITECT.

IT is almost impossible to keep pace with the apparently increasing number of deplorable accidents in connection with buildings and engineering structures: hardly a month goes by without its tale of disaster; so many are there that unless the accident happens to be one of more than usual proportions little interest is excited beyond the locality, except perhaps among those professionally interested. The failure of the great new bridge at Cornwall, Ont., that occurred on September 6th, is a disaster that appeals, perhaps, to engineers first, but certainly to all constructors, and then to the public, for it was a railway bridge for the O. & N. Y. Railway Co.; it was just completed and would very soon have been used for traffic. The bridge was of three spans, supported by two piers in the St. Lawrence River. These piers successfully withstood the current of the river and the severe test of the ice jams of last winter; but just as the last strokes of the iron-fitters were being given one of the piers, that nearest the south shore, gave way and brought down the two spans, carrying with them forty men, of whom at least fourteen were drowned and twenty injured. The spans were 370 feet wide, resting on piers which were of limestone on a concrete foundation. It is said that concrete formed the piers to within a few feet of the surface of the river and that the limestone, resting on this, rose to the height of 38 feet to the ironwork. For protection the piers were surrounded by heavy cribbing work, which the contractors found very difficult to anchor, owing to the current. The river here is very deep. The cause of the accident will not be known until Mr. Schrieber, who, by direction of the Government, is investigating, makes his report, but the opinion prevails that the failure was in the concrete piers, the current being too swift, deep and powerful, and that only limestone should have been used. The bridge is to be rebuilt, but the cost of clearing away the wreckage and the valuable time that would be lost make it probable that another site will be chosen. The depth of the river leaves very little of the wreck above water.

The 21st of September witnessed the unveiling, by His Excellency the Governor-General of Canada, Lord Aberdeen, of the Champlain Monument at Quebec, an illustration of which appeared in the *American Architect* of September 17th. Poor old Samuel de Champlain! with his struggles against untamed nature, as he strove to introduce civilization and keep the peace between rival factions, how little did he dream that nearly 300 years after his death the citizens of Quebec would raise to his memory a monument of so costly a kind and designed by artists in his fatherland—not a local celebration in his honor merely, but one in which his native land participated. The festivities were carried out on a great scale and attracted an immense crowd of visitors. The warships of the North American Squadron and a cruiser of the United States Navy added to the interest of the scene.

Toronto is waking up to the very serious problem of the disposal of its sewage. At present it is all carried into Toronto Bay, an almost land-locked harbor, a mile wide by two miles long, 40 feet deep at the deepest part—a pit, in fact, into which sewage can flow, but cannot escape from. The water of the Bay is becoming more and more filthy every year, by the addition of 240,000 gallons of sewage daily. The Bay is enclosed by a sand-bar which has been made into a park, covered with summer cottages along the lake front, and is the great resort of the citizens. At either end of the sand-bar is a channel for steamers and other vessels, but so shifting is the sand that these channels have to be continually dredged, and consequently there is no outlet for the sewage into the lake. The question of the disposal of refuse is also an important one. There are two crematoriums, one at the east and the other at the west of the city, but these appear to be insufficient for the tremendous accumulation of garbage. A considerable amount of "good solid garbage," as the daily papers call it, has been used for filling-up a great marshy waste at the east, but it is not always garbage of such excellent quality that finds its way there, and when it was found that it was proposed to dump there some forty loads of rot that the crematorium could not cope with a protest naturally was made and the discussion became serious. The garbage question, however, is only one of means—larger

crematories or more of them being all that is necessary; but the disposal of the sewage means a change of the entire system, the building of a trunk sewer for a great distance and discharging into the lake at some distance from the shore. Sewage-farms that have proved so successful in the old country seem to find little favor among those who have had no experience with them and the scheme seems to be regarded with suspicion from the outset.

One effect of the introduction of so much electricity into the city of Toronto has been the removal of the magnetic instruments of the observatory. In order to prevent disturbance they have been taken to Agincourt, a place nine miles from the city, where an asylum for them has been prepared this summer. The Meteorological Observatory remains.

The recent terrible conflagration at New Westminster, B. C., whereby the whole business portion of the town was wiped out, is just another such occurrence as every town and city throughout the length and breadth of this continent is, almost without exception, liable to. The cause of the fire was, so far as at present known, an accident, originating in a shed of some sort, at any rate in a wooden building. The town is said to have been substantially built: the business blocks were not more inflammable than in any other ordinary city. They were not supposed to be so-called fireproof (neither are the majority of business-blocks in other places) yet it may confidently be said that the buildings destroyed were as free from the danger of destruction by fire as in any other city: that is to say, it was not the fault of the construction of the buildings that the conflagration was so great. In other places where fires that assume alarming proportions have occurred it has generally been possible to limit the amount of damage—to confine the flames within a certain area; the chances have always been against the likelihood of buildings adjoining the one where the fire originates being destroyed or even damaged to any serious extent. And, therefore, we may assume that, had this fire started in one of the business buildings, the proportions would, probably, not have been so great. But the fire, starting in a wooden shed, communicated at once with other wooden sheds and buildings and then, when it had become a raging furnace, was swept over the best part of the place. Almost every city has these wooden sheds and buildings, forming, in many cases, the back premises of even the business-blocks. The fire by-laws prevent the erection of new wooden sheds within certain prescribed limits in almost every city, but a fire like that at New Westminster proves that such a limitation is not sufficient, the prescribed area is not large enough, and, more important still,—and this is what we have been leading up to,—it proves that the danger from existing sheds is excessive. The by-laws have never, we believe, gone so far as to order the destruction of wooden sheds and the rebuilding of such premises in less inflammable material, nor are we prepared to say how such an important step could be taken, or such a by-law enforced, but is not such action worth considering? Instead of spending enormous sums in attempting to make a building fireproof or in the provision of engines to cope with these immense fires, could not some of the money be devoted to the removal of all wooden buildings at present existing, and rebuilding them with brick? Surely the danger would be very much lessened. Toronto has been threatened with destruction at least twice within the last fourteen years, or so, from fires that started accidentally in the boat-houses along the shore, and only because the wind happened to be in a propitious quarter was the city saved; the fires themselves were soon beyond control and practically burned themselves out.

The terrible wind-storm which struck St. Catharine and Merriton on the southwest shore of Lake Ontario was a calamity against which it was impossible to provide. Fortunately no lives were lost at St. Catharine but four were lost at Merriton, and the wonder is that there were not more deaths. The storm-cloud seems to have formed at Port Dalhousie, and, travelling in a southeasterly direction, left a track at St. Catharine of 300 yards' width. As it neared Merriton it contracted and thereby apparently gained force, snapping telegraph-poles, uprooting large trees, crushing dwellings and carrying away roofs. It lifted the Carbide Company's lower power-house bodily from its foundation but did not carry it away, so that, beyond being shifted, the building was not seriously damaged. The "wind-cloud," if one may so call it, is described as being an immense gyrating, funnel-shaped cloud, leaving a path so clearly defined that some curious effects are noticeable. One corner of a building has been carried away, the rest remaining untouched; the end of the Lincoln Pulp Mill was damaged, but a scow lying in the canal close by was unmoved. The cloud seems to have passed along with a bounding sort of motion, jumping over some buildings. A young man standing on the railway track was caught, lifted up and carried right over a mill building, deposited unhurt on the other side. The upper part of one of the Carbide Company's buildings was struck, and flattened as if a weight had been put upon it; as the storm-cloud was either rising or descending, the machinery in the building was unhurt, but the beams above it were shifted and some entirely displaced. A touching scene might have been witnessed at the school. Fortunately, at the time it was struck there were not many children in it, the younger ones having gone home after "recess"; but Miss Ida Smith, the teacher, deserves credit for her courage. She saw the storm-cloud approaching and realized there was danger. She gathered the children together in a corner farthest from the approaching cloud, and stood between them and it trying to quiet their fears. The storm struck, cracking the roof like a

nutshell, casting boards, bricks and plaster down on the heads of the frightened little group. One little thing of seven years was buried in the debris and smothered, and another, of nine, had her leg broken by a beam that pinned her down. A storm of this kind is an exceedingly unusual occurrence in this part of the country.

Mr. Thomas Fuller, for many years Chief Architect of the Department of Public Works, Ottawa, died, at the age of seventy-six, on September 28th. Mr. Fuller retired from office last year. He had a career perhaps as important and as varied as any architect—on this continent, at any rate. He was articled in London, and while a student was an enthusiastic measurer of Gothic and Norman work, and some of his measured drawings are included in Brandon's works on Gothic Architecture. After practising in London he went to Antigua as architect for the Anglican Cathedral, after which he carried out some ecclesiastical works in Jamaica and other islands of the Antilles. In the early fifties he built some churches in Toronto and in the early sixties was appointed architect for the Parliament Buildings at Ottawa as the result of a competition in which some thirteen sets of designs were sent in, many of them by architects of note. He was awarded, also, the second prize for the Departmental Government blocks and the Governor-General's residence. In 1863, Mr. Fuller was given charge of all the buildings that at that time were being carried out by the Government. In 1868 he entered into competition for the capitol at Albany, New York State, and was appointed architect, and was afterwards awarded first premium for the city-hall at San Francisco. Mr. Fuller remained at Albany until a change of politics brought a change of architects. In '81 he was invited to return to Ottawa to accept the position of Chief Architect of the Dominion Government, which office he held until his retirement, in '97. During his term of office there were erected from his designs 140 public buildings, which include six drill-halls and several post-offices. Mr. Fuller was a member of the Ontario Association of Architects and at one time held office as its president. He was also a member of the architectural section of the Canadian Academy of Art. Throughout the Dominion, in England, the United States and the West Indies Mr. Fuller has left his mark and the various creations of his art stand as monuments to his memory.

JOSEPHINE'S MALMAISON RESTORED.



THE historic Château of Malmaison, famous for its intimate connection with Napoleon and the Empress Josephine, is, it is announced, about to be presented to the French Government. That the gift will be received with gratitude, the *London Standard* can hardly doubt, "since it recalls a period when French 'glory' was at its height; and we may hope that it will be guarded and cherished with more care than has been bestowed by the Third Republic upon the Palace of Versailles, which, despite its splendid memories of Louis Quatorze, is being allowed to fall into decay."

"France ought, indeed," says the writer of this article, "to be greatly obliged to M. Osiris, the simple *particulier*, who is the intending donor. When he bought Malmaison, two years ago, it was a ruin. The fine staircase was falling to pieces, there were gaping holes in the floors, it was dangerous to walk about the rooms lest the visitor's footfalls should bring down the ceilings upon his head. The beautiful Empire furniture had all vanished, and the greater part of the park had been cut up and sold in small lots. With the aid of taste and money, reinforced by an enthusiastic admiration for the wonderful man who has been the object of so many idolatries, the château has been restored from attic to cellar exactly as it was in the days of Napoleon and Josephine. The work is now approaching completion, and when it is finished M. Osiris will hand the place over to the State, on the sole condition that a museum of souvenirs of the Consulate and the Empire shall be brought together under its roof in time for the Universal Exhibition of 1900."

"This, indeed, will not be the first time that Malmaison has been a Napoleonic museum. During the Paris Exhibition of 1867, when it was still full of relics of the conqueror and his ill-regulated Creole wife—among them Josephine's harp, Napoleon's deathbed, the terrestrial globe from which the luckless little King of Rome learned geography—it was visited by hundreds of thousands of people. There has been so active a revival of interest in Napoleon during the last few years, that a restored Malmaison, full of reminiscences of what it was a century ago, is pretty certain to be one of the prime attractions of the exhibition year. Although the house is associated so closely at once with the happiest and wretchedest days of Napoleon's life, it was always the peculiar domain of Josephine. It was bought by her with almost the earliest savings of the First Consul, and there she established a kind of Trianon, in emulation of the more artificial pleasance created by Marie Antoinette at Versailles."

"The six or seven thousand pounds which she originally gave for the property was a very insignificant fraction of what it cost from first to last, for Lenoir remodelled it during the Consulate in a very costly fashion, and Josephine was continually adding to the amenities of her park by fresh purchases of land. In the height of her prosperity and happiness the Empress was, in all matters touching the adornment of her house, as of her person, a female counterpart of Carlyle's 'very expensive Herr.' The entrance-hall and dining-room of Malmaison were lined with white marble; the roof of the library

was supported upon solid mahogany pillars; the chimney-pieces were of porcelain; her bath-room and bedchamber, with its golden toilet-service presented by the City of Paris, have become legendary. Following the fashion of the time, she kept a menagerie in the park, which was watered by a stream brought at heavy cost from a distance. The house was full of fine pictures, and much of Canova's work lined the beautiful gallery.

"We can hardly doubt that the days which Napoleon, as First Consul, spent at Malmaison were far happier than those which followed his assumption of the crown. There he could be as free and easy as he chose, could spend pleasant, informal evenings with music, reading aloud, and simple charades; he could even keep the bank at *vingt-et-un*, and laugh when his innocent cheating was discovered. All that was necessarily altered when he became Emperor; the dignity of a brand-new Court could not be sacrificed in that way. After the divorce Josephine would not allow the rooms the Emperor had occupied at Malmaison to be touched. The book he had been reading lay open on his desk; his clothes remained scattered about his bedroom. To the last he constantly visited her; but they never met again after Napoleon's exile to Elba. She died comparatively suddenly at Malmaison within a week or two of his departure. That the grim conqueror kept a tender spot in his heart for Malmaison is certain. Thither he went, after Waterloo, when he saw his career closing in gloom and failure, and from its door he started, in less heroic guise than he had left Fontainebleau little more than a year before, upon the road which led to the "*Bellerophon*" and lasting exile."

GREAT ALPINE TUNNELS.

ALL visitors to Italy passing through Switzerland have seen with wonder and delight the St. Gothard Railway, which extends from Lucerne to Chiasso. Traversing, as it does, the Alps in its passage, and embracing nearly 100 tunnels, of which that at the summit is nine and a half miles in length, it has justly been considered one of the greatest engineering feats in the world. As it forms the direct line of communication between Italy and Germany, its traffic has not only grown to very large proportions, but the return to the shareholders is equally large and satisfactory. But the day is fast approaching when the traffic-carrying capacity of the tunnel will present itself for serious consideration and solution, and the company may be compelled to construct a second tunnel parallel to the one already existing. The natural inclination of the valley up which the railway runs is greater than the maximum gradient that was considered admissible, but the Swiss engineers overcame this difficulty by the adoption of the very ingenious system of the circular tunnels. The highest point of the railway is 3,789 feet above the sea and to this altitude all the traffic both of passengers and merchandise has to be carried. It is a question for consideration whether the railway, if it had to be constructed a second time, would not, from later experience, be kept at a lower level, even at the expense of a longer tunnel, for it must be remembered that were the length of these circular tunnels added to that at the summit it would justify the adoption of a greater length in one place. The height of the mountains above the tunnel is 5,595 feet, and from this resulted the high temperature encountered in the rock, viz, 87° F. During the construction of this great tunnel most valuable experience was obtained, all of which will be turned to good account in the future. No less than 600 deaths occurred amongst the employés engaged in the construction, and included both the engineer and contractor. This great mortality was due to various causes—inefficient ventilation, the great heat of the rock in the interior of the mountain, the poor character of the food upon which the Italian workmen fed themselves, but chiefly the exposure of the men to an Alpine climate, while returning to their homes heated and wet to the skin. Their clothes were seldom dried and next day they would go back to their work in damp, or even wet, garments.

The other great tunnel through the Alps, which was constructed at an earlier date, is the Mont Cenis. This tunnel, at an altitude of 2,247 feet above the sea, is nearly eight miles in length, and was also, in its day, considered a marvellous undertaking; but, unfortunately, although most solidly constructed and capable of carrying a large traffic, it is, owing to the war of tariffs existing between France and Italy, but little used. It is provided with a double line of rails, and is lined throughout with either masonry or brickwork, except for two lengths of 100 yards and 80 yards respectively. In these places solid white quartz was encountered, which delayed the work considerably. The gradients are severe—that on the Italian side being 1 in 33, whilst on the French it is 1 in 40. Extensive, but almost obsolete, arrangements are made for ventilation, but the benefit is chiefly and rightly devoted to the welfare of the men employed on the permanent way in the tunnel. Rooms are provided at intervals into which the workmen can retire, and which are supplied with fresh air, drinking-water and telephone. The cost of the tunnel was about £4,000,000, and occupied ten years in construction.

But now a third tunnel—that under the Simplon—is not only proposed but its construction has already commenced. This railway will form the most direct communication between Berne, Lausanne and Geneva to Domo d'Ossola, Milan and the north of Italy, and it has the great advantage of being on a low level. While the altitude of the St. Gothard is 3,789 feet above the sea and that of the Mont Cenis is 4,247 feet, the Simplon is only 2,312 feet. In other words, the heavy traffic will pass through the Alps at a lower level, by some

1,477 feet, than in the case of the St. Gothard. Another great advantage it will possess is that the approach on the Swiss side will be of the simplest character. The Jura-Simplon Railway has its terminus at Brieg in the Rhone valley, and the tunnel mouth will be on the present level of, and at a short distance from, the end of the existing sidings of Brieg station. The length of the tunnel will be 12½ miles, the Italian end being at Iselle. The maximum gradient will be 1 in 140, and the work will consist of two parallel tunnels—each for one pair of rails—at a distance apart of about 50 feet.—*London Times*.

TREASURES IN FRENCH COUNTRY-HOUSES.



HE present-day French nobleman of wealth, or Bourse baron, does not fill his château with paintings carefully culled in studios and bought at the auction mart, he generally keeps them for his Paris residence. Things are reversed since the house in Paris was the hotel or place at which he put up when he came with a great retinue to town. The abiding-place was the château in the country. But life was rude there, except in the few places like Thouars and the Renaissance châteaux on the Loire. Richelieu and Louis Quatorze reversed this order of things. The hôtel of the *grand seigneur* became his permanent abode. He only embellished his country residence when he was exiled to it by *lettre de cachet*. De Choiseul, as an exile, lavished some of his wife's millions on Canteloup, and his gardener produced a species of melon that still bears the name of the long-demolished château. Diane de Poitiers was bitten by the passion of her royal lover for Renaissance châteaux in the country. Mme. de Pompadour decentralized in building magnificent and tasteful country-seats. None of those she built has survived the Revolution. A beautiful place she bought ready-made at Celle, St. Cloud, is in the hands of a M. Dutreux, a Luxembourgeois. It is not shown to utter strangers.

The utter or outer stranger has no chance of seeing art treasures stored up at private houses, unless at loan exhibitions for charitable purposes. France prides herself on her "hospitality." England does not. Yet the Duke of Westminster allows any respectable person who asks leave in writing to see his collection in London. Excepting M. Chauchard, of the Magasin du Louvre, I hardly know of any Cræsus who is at all liberal in granting admission to his gallery. M. Chauchard never leaves town, and lives in the Avenue de Velasquez. He cannot bear to quit his darling pictures, none of which was bought to be resold at a profit. They came into his gallery to be companions for the rest of his life. It is surprising how few errors he has made in choosing. Of course, he is bigoted towards the French school. Frenchmen require their eyes to be opened to the art of other countries by some illustrious critic or king who really feels beauty in art, like Francis I. Chauchard paid what I cannot help thinking a mad price for Millet's "*Angelus*." His object was a double one—to please the amateur in himself and to bring back a French masterpiece to France, let the cost be what it might. But I am afraid this connoisseur would not open his house, like the Duke of Westminster, to *le premier venu*. One should be recommended by some great picture-dealer or illustrious artist. Secrétan, for some years a "copper king," and ruined finally in a copper corner, was scarcely more liberal. The most famous painting of Millet belonged to him before it went to Chicago. He also was devoted to the French school.

Baron Alphonse de Rothschild has a priceless collection of La Tours, Greuzes, Bouchers, and other eighteenth-century paintings. But they are well guarded from the public eye, and are not shown at loan exhibitions. As his cousin, Baron Adolphe de Rothschild (Neapolitan branch), does not so closely hug his art treasures, I recollect seeing at a charity show a Mme. de Pompadour of Boucher belonging to him.

All the Rothschilds have fine country-places near Paris. So have the Heines, Hirschs, Goldschmits, Perrières, and Foulds. But the gates are locked and double-locked. The Rothschilds do not hire State forests for shooting, as did the late "*sucrier*" Lebaudy and some Bourse barons that I could name, who sow spring-guns and wolf-traps in them, and fence path-sides with barbed-wire, thus showing themselves hateful, and making themselves hated. Baron Alphonse still owns the chase created by his father, Baron James, at Ferrières. The soil there, being clayey, holds the water. Asphalt is laid down on miles and miles of walks. This takes from the country air of the park. Not far from Ferrières, but on the Paris side, is the chocolate factory of the Meniers at Noisiel-sur-Marne. It is worth a visit on account of the model village connected with it. This place abounds in fine children, well fed, well dressed, well taught. M. Gaston Menier carries on the good work begun by his late father and mother. He has a handsome country-house at Noisiel. There are lovely river views between his factory and Charenton, where the Marne joins the Seine.—*Paris Correspondence London Truth*.

WHY WORK STOPPED ON THE PALAIS CASTELLANE.—The little Count Castellane has to work almost too hard for a count in trying to get money out of the Goulds. The awful rumor is about that work is stopped on the red marble Castellane Paris palace because the countess and her family found out that the count had an arrangement with the builders and architects by which he got forty per cent commission!—*Boston Transcript*.



AMERICAN INSTITUTE OF ARCHITECTS.

THE Thirty-second Annual Convention will be held at the Arlington Hotel, Washington, D. C., on Tuesday, Wednesday and Thursday, November 1, 2 and 3, 1898.

TUESDAY, NOVEMBER 1.—MORNING AND AFTERNOON SESSION.

The members of the Institute will assemble in the banquet-hall, Arlington Hotel, promptly at 10 o'clock; will register their names, and at 10.30 Hon. John B. Wight, President of the Board of Commissioners, of the District of Columbia, will deliver an address of welcome, and the President of the Institute, Mr. George B. Post, of New York, will deliver the annual address, after which the Convention will be declared open for business.

It is proposed that the morning and afternoon session shall be continuous with the exception of a recess, during which the Convention will lunch in the Convention Hall. The afternoon session will be short, after which the members will be given an opportunity to pay their respects to the President of the United States, at the White House, and then to visit the "Octagon House," to which they will be welcomed by George B. Post, President of the Institute, and Frank Miles Day, Chairman of the Special Committee on fitting up the same.

EVENING SESSION, 8 P. M.

To consider and act upon report of the Committee to Revise Constitution and By-Laws. The meeting will adjourn at 9 o'clock for the purpose of visiting the Congressional Library, under the guidance of the Superintendent, Mr. Bernard R. Green, M. A. S. C. E., through whose courtesy members and their wives are invited.

WEDNESDAY, NOVEMBER 2.—MORNING SESSION.

1. The following papers will be presented: (a) "Acoustics," Prof. W. C. Sabine, of Harvard University. Followed by a communication on the same subject from Adolf Cluss, F. A. I. A., Washington, D. C. (b) "Some Peculiarities of Timber," Prof. B. E. Fernow, Dean of the New York State College of Forestry, former Chief of the Division of Forestry, United States Department of Agriculture. (c) "Remarks on some little-known American Ornamental Stones," Prof. G. P. Merrill, United States National Museum.

2. Reports of Special Committees.

3. Unfinished business of previous day.

Trip to Cabin John Bridge; leaving the Arlington, by trolley-cars, at 12.30 P. M. Luncheon, at 2 P. M., at Cabin John Bridge Hotel. On return trip a stop will be made at Glen Echo.

EVENING SESSION, 8 P. M.

1. The following papers will be presented: (a) "The Place to be assigned to the Jewish People in Architectural History" [illustrated by lantern slides], Dr. Cyrus Adler, of the Smithsonian Institution. (b) "General Practice in Regard to the Employment of Electric, Heating and Sanitary Engineers," H. G. Bradlee, Boston. To be followed by a discussion which will be opened by Cass Gilbert, of St. Paul, Minn., and Frank Miles Day, of Philadelphia.

2. Consideration of Amendments to the Constitution and By-Laws reported by the Special Committee.

THURSDAY, NOVEMBER 3.—MORNING SESSION, 10 A. M.

1. Reports of Committees appointed at the opening session and their consideration.

2. Unfinished business.

3. Election of officers and selection of a place for the next Annual Convention.

4. Miscellaneous Business.

The morning session will be followed by a luncheon in Convention Hall.

The afternoon will be reserved for trips to points of interest, under the guidance of members of the Washington Chapter.

Per order of the Committee of Arrangements.

ALFRED STONE, Secretary, A. I. A.



[Contributors of drawings are requested to send also plans and a full and adequate description of the buildings, including a statement of cost.]

TRUSTEES' ROOM: LIBRARY OF COLUMBIA UNIVERSITY, NEW YORK, N. Y. MESSRS. MCKIM, MEAD & WHITE, ARCHITECTS, NEW YORK, N. Y.

[Gelatin Print, issued with the International and Imperial Editions only.]

EQUESTRIAN STATUE OF GEN. JOHN F. REYNOLDS, GETTYSBURG, PA. MR. H. K. BUSH-BROWN, SCULPTOR, NEW YORK, N. Y.

CAPITOL FOR THE STATE OF MONTANA, HELENA, MONT. MESSRS. BELL & KENT, ARCHITECTS, COUNCIL BLUFFS, IA.

THIS building measures 250' in length by 70' in width—140' at the widest part—the dome rises to a height of 160'. The structure is to be fireproof, and faced with stone, the interior being finished in hardwood and marble. The contract has been let to the Montana Building Co. at \$290,000, a sum which was \$10,000 less than the estimated cost.

HOUSE OF T. A. MCGRAW, ESQ., DETROIT, MICH. MESSRS. ROGERS & MACFARLANE, ARCHITECTS, DETROIT, MICH.

ENTRANCE TO "THE DUNSTER," CAMBRIDGE, MASS. MESSRS. LITTLE, BROWN & MOORE, ARCHITECTS, BOSTON, MASS.

[The following named illustrations may be found by reference to our advertising pages.]

KELLOG TERRACE, GREAT BARRINGTON, MASS.

This plate is copied from *Architektonische Rundschau*.

BANK, ST. QUENTIN, FRANCE. M. MALGRES, ARCHITECT.

This plate is copied from *La Construction Moderne*.

[Additional Illustrations in the International Edition.]

DOORWAYS IN THE TRUSTEES' ROOM: LIBRARY OF COLUMBIA UNIVERSITY, NEW YORK, N. Y.

[Two Gelatin Prints.]

THE QUEEN'S SITTING-ROOM AT THE HAGUE, HOLLAND.

"KELSEY," BECKENHAM, ENG. MR. FRANCIS HOOPER, ARCHITECT.

THE DRAWING-ROOM OF THE SAME.



THE PHILADELPHIA PHOTOGRAPHIC EXHIBITION.—Philadelphia is to have the first American photographic salon. Paris and London have had more or less successful salons of this character, but in each centre the American exhibitors carried off the palm, and it is but just that they should now show their own countrymen the artistic harvest of the native camera. The Pennsylvania Academy of the Fine-Arts has combined with the Photographic Society of Philadelphia to form an exhibition of purely artistic photographs, which in its degree shall do for photography what the Paris Salon does for the fine-arts, namely, establish a standard of taste. Exhibits from all parts of the world will appear side by side, but no work can be included which has not passed the representative jury of artists and photographers, consisting of W. M. Chase, Robert W. Vonnoh, Alice Barber Stephens, Alfred Stieglitz, and Robert W. Redfield. The salon will open in the Academy of the Fine-Arts Galleries on Monday, October 24, and remain on view till Saturday, November 12.—*N. Y. Times*.

ATTEMPT TO STEAL PENN'S BODY.—An attempt was made recently to steal the body of William Penn, whose remains are lying in the graveyard of the Quaker meeting-house at Jordans, Buckinghamshire. It has been suspected for some time that a surreptitious attempt to remove the remains would be made, and the burial-ground was guarded. The watch was, however, recently withdrawn. The inmates of a cottage near by were awakened by the barking of a dog, and at daylight they found that Penn's grave had been partially opened. A couple of feet of the soil had been removed, and a spade and some newspapers were lying near. It was evident that the body-snatchers had been disturbed by the dog. The police have been investigating the matter, but thus far no trace has been found of the robbers. The burial-place lies secluded in a valley, and, apart from American tourists, few people visit the spot. A well-dressed American, who was lately seen wandering about the district, is suspected of being the person who attempted to rifle the grave. He is believed to be a crank. On the morning following the disturbance of the grave this man walked to the town of Homel-Hempstead, where he told a woman that money belonging to him was buried in Penn's grave. The caretaker of the graveyard says that several years ago some Americans offered him a large sum of money to steal Penn's body.—*N. Y. Tribune*.

ELECTRIC-LIGHT FOR THE BOIS.—In accordance with the public wish, which has been expressed for some time, the authorities have decided to instal electric-light in the Bois de Boulogne. It will, of course, be possible to light only the chief avenues, which will leave plenty of corners for those who like to prow in the dark, and for others. The plans are ready; they were prepared under M. Bareaux, Director of Parks and Public Grounds. The completed plan includes the lighting of the long avenue running from the Maillot Gate to the Suresnes Bridge, through Longchamps, with two pathways from Longchamps to the end of the ponds and to the Dauphine Gate; the lighting of the drives around the ponds and lawns of La Muette; and also the Avenue de l'Hippodrome, running from the ponds to the hippodrome of Longchamps, together with a part of the Queen Marguerite Road, lying between the Longchamps Road and the avenue to the Hippodrome. These three divisions constitute three "pressing needs," which can all be done at once or one after the other. The lighting will be done by candelabra supporting very powerful arc-lamps, after the manner of those on the Paris boulevards. Current will be furnished either by a municipal power-station built for the purpose, or else by the central station at Puteaux. The cost of construction, including the conduits, the erection of supports for the lamps and the lamps themselves, will come to about 435,000 francs, being divided as follows: 205,000 francs for the first division, 140,000 francs for the second and 90,000 francs for the third. The execution of this project is, of course, subject to the approval of the Municipal Council, which meets in October, and which will vote the necessary money, if, after due discussion, the conclusion is reached that the proposed work is desirable. It is quite probable, however, that the measure will be passed, although not without opposition; for, while there are many in favor of it, there are also some dissenting voices heard. Those in favor of the scheme, and among these are the cyclists (the cyclist press having maintained a very vigorous campaign in favor of it), point to the advantage of having the light to help in clearing the park of the bad characters that now infest it. Hidden in the shadow of the bushes and the underbrush, where the police cannot reach them, these people watch for a chance to attack with club or knife some unsuspecting person who may happen to venture beyond the Chinese Pavilion. Or they will stretch a string between two trees across an avenue, so as to throw some cyclist, who is then knocked on the head, for the sake of getting his machine. With the avenues lighted, other inhabitants of Paris as well as the cyclists can go and breathe a whiff of fresh air in the evening, a thing which will soon be brought within the reach of all, since the new tram-line from Porte Maillot to Suresnes, which skirts the sunken fences of the park, will enable those who possess neither horses nor carriages to ride at small expense. The lighting of the park is therefore a democratic measure, and that is a reason which will insure its approval by the Municipal Council. — *Paris Letter to the Electrical World.*

AN HISTORICAL WATER-TANK.—One hundred years ago a charter was granted to certain citizens of New York giving them the privilege of building and maintaining a system of water-works. Under this grant a pumping-plant was established at Collect Pond and water distributed in a limited district through wooden conduits—bored logs. This continued to be the main supply of the town until the municipal authorities took up the matter and inaugurated what has since grown into the present Croton system. The business of the private company, of supplying water for domestic and fire purposes, having thus been assumed by the city, it would be supposed that they had no further field and would quietly drop out of existence. But such was not the case, and the genius of the framer of that charter—Aaron Burr—comes into evidence. The charter carried the right to build a water-works and also to carry on a general banking business. This clause now became all-important, and since the water-supply business had to be abandoned that of general banking was taken up, and the Manhattan Bank was born. It appears to be the belief that this bank must, in order to enjoy its charter, maintain a tank or reservoir full of water and in serviceable condition. It would seem that such action on the part of the bank is considered absolutely essential, since such a tank has been carefully kept up for many years at the corner of Reade and Centre Streets. At the recent widening of Elm Street buildings were removed and the tank exposed, the tank itself just missing the line of the new street by a few inches. The tank proper rests upon a circular masonry wall, which in turn is supported upon a circular row of masonry arches in the cellar. The tank is about 30 feet in diameter by 12 in depth and is formed of cast-iron plates about 2' x 4'. The plates, the form of which may easily be imagined, are flanged and bolted together, the vertical joints being broken. At each horizontal joint and at the centre of each row of plates is an iron strap which rests in brackets cast on the plates. The meeting-ends of each strap are formed with a single and double loop which overlap each other. In the loops is a wedge which serves to tighten the strap when necessary. The tank is supplied with water by a pump in the basement which draws its supply from a well. It would be interesting to know the name of the builder of the tank and of the foundry where the plates were cast, together with the date of its erection. But the officials of the bank have not these particulars—at least they are not conveniently obtainable. — *Carpentry and Building.*

AMERICAN PIPES IN GLASGOW.—Kinglake, in his "History of the Crimean War," relates how the English admiral left a single frigate to watch the Russian fleet while he sailed to form a base to the army. He adds that the people had previously heard of the sovereignty of the seas, now they saw it. A somewhat parallel passage might be written about foreign competition. The citizens of Glasgow have heard much about it, and not a few have scouted the possibility of it in unmeasured terms; but when they see American cast-iron pipes laid in their streets they will have visual evidence which it will be impossible to controvert. An order for 1,000 tons has been given to Messrs. R. D. Woods & Co., of Philadelphia, in spite of the urgent efforts of a part of the City Council to secure the order for Messrs. R. Maclaren & Co. The facts are very simple: tenders were advertised for, and

the American firm offered to do the work for 4,965*l.* 7*s.* 6*d.*, while the Scotch firm wanted 5,641*l.* 0*s.* 6*d.*, a difference in favor of the American firm of 675*l.* The fact that the foreign pipes would be in 12-foot lengths, instead of the usual 9-foot, was made an excuse for readvertising. The same firms tendered again, Woods reducing their offer by 73*l.* 6*s.* 7*d.*, and Maclaren by 682*l.* 12*s.* 6*d.* The American pipes were still the cheaper, but the Water Committee added 150*l.* to the tender for the cost of a testing-machine, and proposed to give the order to their fellow townsmen, who, presumably, had a testing-machine which could be used. Some members of the City Council, however, objected to such unfair dealing, and an amendment dividing the contract was proposed and carried. According to the motion, the Glasgow firm were to have all the small pipes to make, and this they refused to undertake at the price named; eventually it was decided to award the entire order to Messrs. Woods. In the course of the discussion it was broadly hinted that the Scotch pipe-founders had long taken advantage of the city of Glasgow, and that by mutual arrangement they had eliminated all serious competition for these contracts. It was stated that similar pipes were supplied to Edinburgh for 10*s.* a ton less. We do not know how much truth, if any, there is in these statements, but it is not likely that such tactics will be repeated. It is a serious thing, not only for Glasgow but also for the entire country, that American goods should be coming here in such large quantities, and British manufacturers, both masters and workmen, need to take the subject to heart. Of course, we know the reasons that are alleged—that our works are busy at remunerative rates, and that the American goods make no profit, and so on. The one incontrovertible fact is that the Americans have supplied their own market, and have a surplus to export. When a nation gets into that position it must sell its goods for what it can get for them, and, as long as it has its protected home market, it can stand the process a long time. The most remarkable feature in American manufacturing has been the wonderful decrease in working-expenses and carriage during the last five years; and there is no reason to believe that these items have yet reached the bottom. We do not know whether the Glasgow contract will show a profit or a loss to Messrs. Woods, but we are certain that the Scotch founders have not heard the last of American pipes. — *Engineering.*

PICTURES TAKEN TO THE POUND.—Some surprise has been expressed at the fact that a rather large collection of unclaimed paintings and statuary exhibited in this year's salons has had to be removed to the Government "pound" on the Avenue de Saxe. The owners of these works of art seem to have been absolutely callous or careless about the fate of their pictures, statues and busts after these had served for exhibition purposes and failed to obtain purchasers. There is, however, an explanation for the supposed callousness or indifference. It appears that many of the canvases and sculptured figures belong to Bohemian artists afflicted with the terrible malady of impecuniosity. Their works are mortgaged, for they borrowed heavily on them after they had passed the art-jurors, and had been admitted to the Champ de Mars. The artistic Bohemians are, accordingly, glad to leave their masterpieces impounded, for the creditors will thus find a difficulty in getting hold of the articles on which they advanced money. The trick is something like one of those played by the facetious artist Cabron on the concierge, Monsieur Pipelet, in Eugène Sue's "Mysteries of Paris." Among the unclaimed pictures and works of statuary are also some owned by foreign artists and sculptors, who are supposed to be unable or unwilling to bear the expense of the return of their property from Paris. All the works of art now in the building on the Avenue de Saxe will be kept there for twelve months, after which period they will be sold, and the proceeds of the sale applied to the expenses occasioned by their transfer from the Champ de Mars and their storage in the pound. — *London Telegraph.*

UTILIZING THE SUN TO WIND A CLOCK.—Mr. Burton of Indianapolis has two novelties in his home. One is a clock which has not been wound in three years and six months, but which has run all the time. It is wound by a more reliable agency than anything human. It may be said to be wound by the solar system. In this invention the axiom of heat expanding and cold contracting is the basis. The clock is wound by changes in the temperature, the principal force being in the day and night differences. Mr. Burton found that there is an average difference of twenty degrees in the temperature of the night and the day. The day, of course, is the warmer. The heat of the day expands the atmosphere and the lower temperature of the night contracts it. This is how Mr. Burton applied the force to his clock—an ordinary old-style clock—using a weight: outside of his house he has a tin tank, ten feet high and nine inches in diameter. It is air-tight. From it a tube runs into the cellar. This tube leads to a cylindrical reservoir, which receives the air from the tank. In this reservoir there is a piston, whose rod moves with a ratchet between the chain on which the piston depends. The heat of the sun expands the atmosphere in the exterior tank, thus forcing any excess into the reservoir near the clock. During expansion the piston rises. In the night-time the contraction of the air in the exterior tank reduces the air in the reservoir and the piston lowers itself. The ratchet arrangement winds the clock. — *Indianapolis News.*

WILD BEASTS AND VENOMOUS SNAKES.—The loss of human life and of cattle caused by wild animals and venomous snakes in the Central Provinces during the year 1897, as compared with the figures for the previous year, is as follows: The number of human beings killed by snakes (in spite of the discontinuance of rewards) fell from 1,133 to 1,010; but wild animals killed 700 against 361 in 1896, or nearly double. The number of cattle killed fell from 8,757 to 8,257. The number of wild animals for the destruction of which rewards were paid fell from 1,566 to 1,197, and that of snakes from 1,337 to 29. Tigers killed 350 persons in 1897, compared with 172 in the previous year, while the numbers killed by panthers rose from 54 to 214. — *Indian Engineering.*





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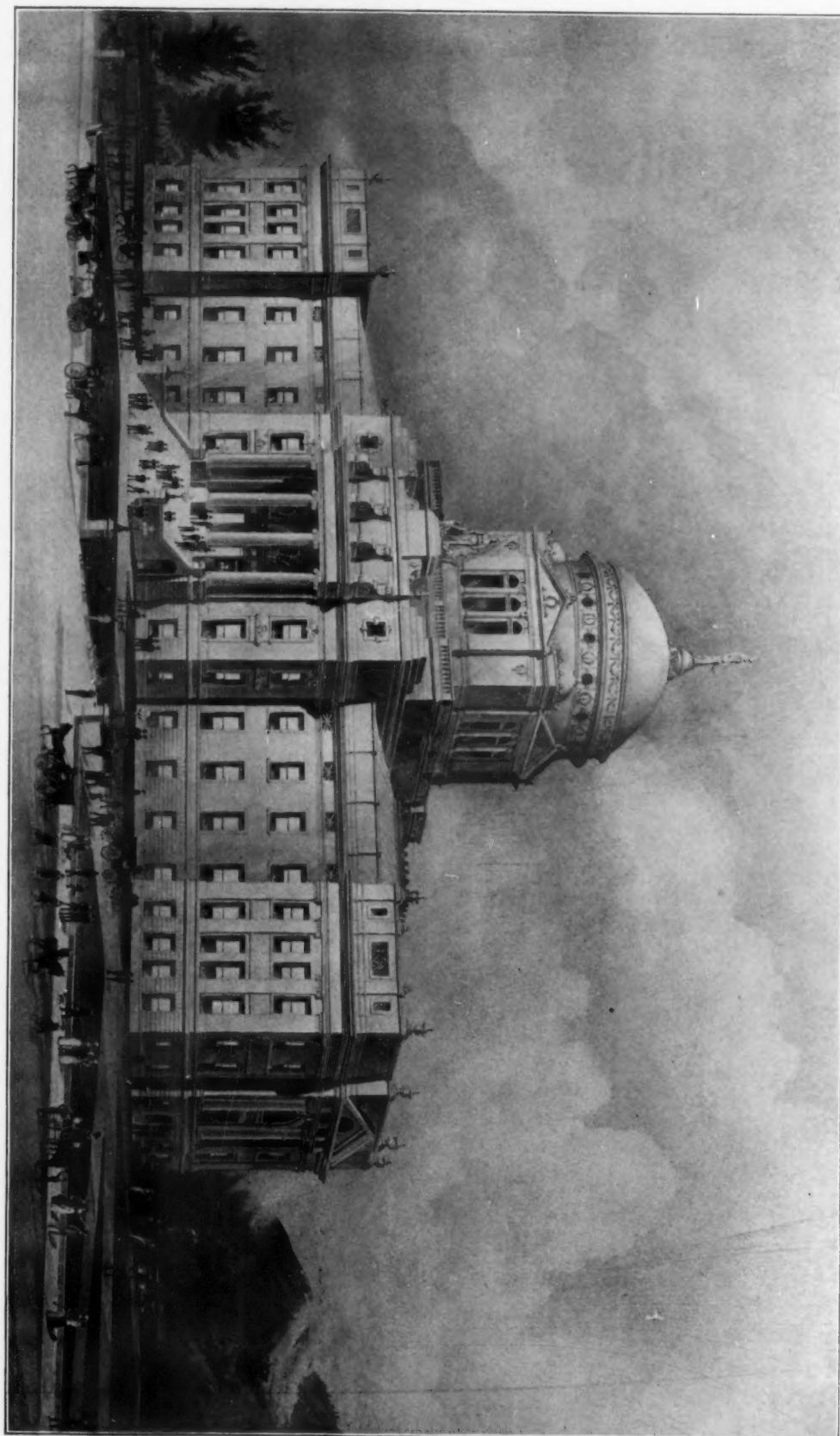
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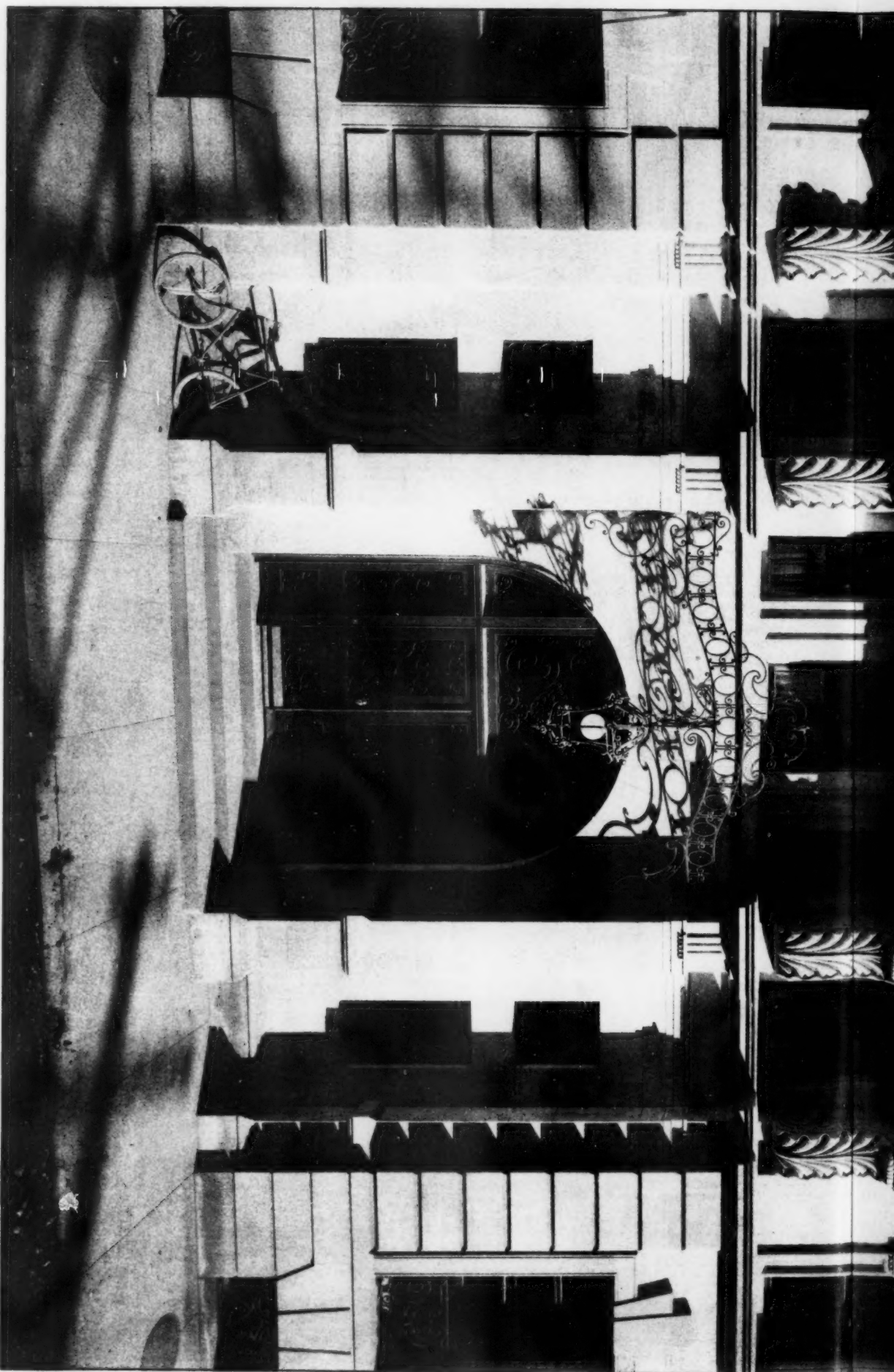
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